

NOV 21 2006

UNIVERSITY OF KENTUCKY
APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR & MINOR

OFFICE OF THE
SENATE COUNCIL

1. Submitted by College of Health Sciences Date 6/30/06
Department/Division offering course Rehabilitation Sciences/Communication Disorders
2. Changes proposed:
(a) Present prefix & number CD 402 Proposed prefix & number No change
(b) Present Title Bases of Speech
New Title Speech and Hearing Science
(c) If course title is changed and exceeds 24 characters (including spaces), include a sensible title (not to exceed 24 characters) for use on transcripts:
Speech & Hearing Science
(d) Present credits: 3 Proposed credits: 3
(e) Current lecture: laboratory ratio 3:0 Proposed: 3:0
(f) Effective Date of Change: (Semester & Year) Spring 2007
3. To be Cross-listed as: N/A
Prefix and Number _____ Signature: Department Chair _____
4. Proposed change in Bulletin description:
(a) Present description (including prerequisite(s)):
Provide basic information concerning the physics of sound and the scientific bases of human speech production and perception. The relationship between speech production and speech perception will also be addressed. Students will have exposure to instrumentation designed to increase understanding of human communication.
(b) New description:
Investigation of the physiological and acoustic bases of speech and hearing; the physics of sound and the scientific bases of human speech production. Students will have exposure to instrumentation designed to increase understanding of human communication.
(c) Prerequisite(s) for course as changed: CODI major or permission of instructor (no change)
5. What has prompted this proposal?
This change is part of a group of changes being submitted to better reflect curricular currency and to meet student needs. Speech and Hearing Science is a course traditionally seen at other benchmark institutions, reflecting the concept that basic understanding of sound is universal to both speech and hearing.
6. If there are to be significant changes in the content or teaching objectives of this course, indicate changes:
See attached
7. What other departments could be affected by the proposed change? None
8. Is this course applicable to the requirements for at least one degree or certificate at the University of Kentucky? Yes No
9. Will changing this course change the degree requirements in one or more programs? * Yes No
If yes, please attach an explanation of the change.*
One of several proposed changes. See attached Program change form.
10. Is this course currently included in the University Studies Program? Yes No
If yes, please attach correspondence indicating concurrence of the University Studies Committee.
11. If the course is a 100-200 level course, please submit evidence (e.g., correspondence) that the Community College System has been consulted.

*NOTE: Approval of this change will constitute approval of the program change unless other program modifications are proposed.

UNIVERSITY OF KENTUCKY
APPLICATION FOR CHANGE IN EXISTING COURSE: MAJOR & MINOR

12. If the course is 400G or 500 level, include syllabi or course statement showing differentiation for undergraduate and graduate students in assignments, grading criteria, and grading scales. Check here if 400G-500.
12. Is this a minor change? Yes No
 (NOTE: See the description on this form of what constitutes a minor change. Minor changes are sent directly from the Dean of the College to the Chair of the Senate Council. If the latter deems the change not to be minor, it will be sent to the appropriate Council for normal processing.)
13. Within the Department, who should be consulted for further information on the proposed course change?

Name: Judith L. Page, Ph.D., Director Phone Extension: 3-1100 ext. 80571

Signatures of Approval:

<p><i>Judith L. Page</i> Department Chair</p>	<p>7/3/06 Date</p>
<p><i>Sharon R. Stewart</i> Dean of the College</p>	<p>7/25/06 Date</p>
<p><i>[Signature]</i> **Undergraduate Council</p>	<p>Date of Notice to the Faculty 11-7-06 Date</p>
<p><i>[Signature]</i> **Graduate Council</p>	<p>Date</p>
<p><i>[Signature]</i> **Academic Council for the Medical Center</p>	<p>9-20-06 Date</p>
<p>**Senate Council</p>	<p>Date of Notice to University Senate</p>

**If applicable, as provided by the Rules of the University Senate.

ACTION OTHER THAN APPROVAL

The Minor Change route for courses is provided as a mechanism to make changes in existing courses and is limited to one or more of the following:

- a. change in number within the same hundred series;
- b. editorial change in description which does not imply change in content or emphasis;
- c. editorial change in title which does not imply change in content or emphasis;
- d. change in prerequisite which does not imply change in content or emphasis;
- e. cross-listing of courses under conditions set forth in item 3.0;
- f. correction of typographical errors. [University Senate Rules, Section III - 3.1]

CD 402 – Speech and Hearing Science
Spring

Instructors: Jodelle F. Deem, Ph.D.

Office: CTW 120L (Deem)
323-1100 ext. 80557

Office Hours: Appointments are encouraged

Old Course Description

Provide basic information concerning the physics of sound and the scientific bases of human speech production and perception. The relationship between speech production and speech perception will also be addressed. Students will have exposure to instrumentation designed to increase understanding of human communication. Prereq: CODI major or permission of instructor.

Proposed Course Description

Investigation of the physiological and acoustic bases of speech and hearing; the physics of sound and the scientific bases of human speech production. Students will have exposure to instrumentation designed to increase understanding of human communication. Prereq: CODI major or permission of instructor.

PURPOSE OF THE COURSE

The purpose of this course is to provide students with basic information concerning the physics of sound and the scientific bases of human speech production. Emphasis in the course will be placed on the acoustic and physiologic nature of speech and sound. Students will have opportunities with instrumentation designed to increase understanding of human communication.

REQUIRED TEXT

Borden, Gloria J., & Harris, Katherine, S., & Raphael, L. (2003). Speech Science Primer (Fourth Edition), Baltimore: Lippincott, Williams & Wilkins.

COURSE OBJECTIVES (Current CD 402)

1. Compare models of speech production and speech perception.
2. Describe acoustic cues for the perception of speech sounds.
3. Define parameters of sound waves (frequency, amplitude, phase, wavelength, and transmission of sound waves through the air).

NEW COURSE OBJECTIVES (Proposed CD 402 - Speech and Hearing Science)

By the end of the semester, given assignments, oral presentations, class discussion, independent application activities, and exams, the students will be able to demonstrate the following learning:

1. Compare models of speech production.
2. Describe acoustic cues of speech sounds.
3. Define parameters of sound waves (frequency, amplitude, phase, wavelength, and transmission of sound waves through the air).

4. Complete Programmed Instruction in the decibel.
5. Calculate simple acoustics problems.
6. Identify theories of sound propagation and production.

Topics:

I. Introduction

- A. The speech chain
- B. Questions asked by speech and hearing scientists

II. Acoustics

- A. Simple harmonic motion
- B. Sound propagation
- C. The Decibel
- D. Complex sound and analysis

III. The Product of Speech Production: Speech Acoustics

- A. Basic anatomical model
- B. Articulation and resonance
- C. Context effects
- D. Perceptual cues

IV. Speech motor control

- A. Multi-dimensional measures of speech production
- B. Feedback
- C. Models of speech production

V. Auditory psychophysics

- A. Basic anatomical model
- B. Audibility
- C. Discrimination
- E. Loudness and pitch

ASSIGNMENTS AND GRADING

The following assignments will be used to determine a grade for this course. Dates for the assignments are as follows:

Exam 1 (Monday, February 21 st)	(100 points)
Exam 2 (Wednesday, April 6 th)	(100 points)
Exam 3 (Wednesday, May 4 th @ 10:30)	(100 points)
3 "Lab" Assignments	(20 points <u>each</u>)

- All dates for all assignments are tentative/subject to change.
For each assignment, and for the final course grade, letter grades will be calculated as follows:

A = 90 – 100

B = 80 – 89

C = 70 – 79

D = 60 – 69

E = below 60

Examinations. Three examinations will be derived from lectures, readings, and other supporting materials. The 3rd examination is not comprehensive. Each exam will consist of multiple choice, true/false, matching, and other types of objective questions. Some calculations may also be required.

Your primary source of information will be class lectures, so regular class attendance is required. Special assignments *may include* unannounced quizzes, library/journal reading assignments, brief lab assignments with instrumentation, etc. To record attendance, students will “sign-in” on a class attendance sheet provided by the instructor at the beginning of each class period. Students who have unexcused absences will not be permitted to make up unannounced quizzes, exercises, worksheets, etc., which are assigned in their absence.